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INTRODUCTION  
Charles D. Kerns

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## INTRODUCTION

Charles D. Kerns

This issue will reflect some of the growing trends in counseling, school psychology and related areas of behavior change. Mazza's article reviews some of the intriguing literature that has recently emerged concerning the experimental analysis of covert behavior. She concisely surveys several behavioral techniques that have been employed in this sparsely researched area while cautioning the reader about methodological difficulties involved in this approach. Articles by Litow and Pumroy and Levin combine two rapidly developing techniques in behavioral sciences, groups and reinforcement. Litow and Pumroy's paper presents an original perspective on group reinforcement contingencies. Aside from their helpful conceptual framework, an extensive coverage of this research literature is provided. Levin's brief report suggests further support for the efficacy of classroom group contingencies.

Matis' article demonstrates the traditional baseline design approach used in behavior modification treatment programs. However, she used high school students as subjects which is a refreshing diversion since the reported behavior modification literature to date with this subject population is anemic.

Kahn, in his discussion, shifts our attention to vocational-occupational concerns. His paper extends the notion of career development education to the elementary school level. An informative schema for viewing this process is provided with several implications mentioned which offer credence for this approach. Finally, Grites and Mills offer an interesting glance at the demands for educational-vocational counseling at the University of Maryland's Counseling Center.

### Techniques for Increasing Frequency of Behavior

Techniques of covert reinforcement which appear to have clinical applicability have been suggested by Cantello (1970a, 1970b). Covert reinforcement, like overt reinforcement, is used to increase response probability. Both covert positive and covert negative reinforcement depend heavily on the client being able to vividly imagine a particular stimulus. Both the response to be increased in frequency and the reinforcing stimulus are imagined according to instructions given by the therapist to the client. The procedure Cantello outlines for covert positive reinforcement (CPR) is as follows: (1) possible reinforcing events are identified by use of the Reinforcement Survey Schedule, an instrument developed by Cantello and Mastenbaum; (2) the client is suggested reinforcing events not included in the schedule; and by gathering information from case histories, relatives, friends, etc.; (2) the client imagines the target behavior to be increased



# BEHAVIORAL TECHNIQUES APPLIED TO COVERT EVENTS

Judith Mazza

Psychology had its beginnings with man endeavoring to understand "mental events" such as thoughts, feelings, etc. However, Watsonian behaviorism, treated the organism as a "black box" in which it was not necessary to understand events which were non-observable, but to deal only with input and output. Behaviorism and operant psychology have become more sophisticated since the days of Watson. Increasing numbers of behavioral scientists are dealing with private events, not as the psycho-analytic school did by inventing special mental concepts to explain non-observable events, but by applying those principles of behavior derived from the animal laboratory and corroborated in clinical work, to covert events. Skinner (1953) said, "An adequate science of behavior must condify events taking place within the skin of the organism, not as physiological mediators of behaviors, but as part of the behavior itself."

An operant psychologist who conceptualized covert behaviors using Premack's Principle (i.e., a high frequency event can be used to reinforce a low frequency event) was Homme (1965) who coined the word "coverant" to deal with thoughts or private events (coverant is a contraction of covert-operant). Homme emphasizes the use of Premack's differential probability hypothesis to control reinforcement contingencies for covert behaviors based partially on the premise that thinking about a response is making an approximation to it. This paper will review some of the current covert behavioral techniques used in increasing and decreasing the frequency of overt behaviors. Some methodological difficulties concerning this new clinical approach will also be discussed.

## Techniques for Increasing Frequency of Behavior

Techniques of covert reinforcement which appear to have clinical applicability have been pioneered by Cautela (1969, 1970a, 1970b). Covert reinforcement, like overt reinforcement, is used to increase response probability. Both covert positive and covert negative reinforcement depend heavily on the client being able to vividly imagine a particular stimulus. Both the response to be increased in frequency and the reinforcing stimulus are imagined according to instructions given by the therapist to the client. The procedure Cautela outlines for covert positive reinforcement (CPR) is as follows: 1) possible reinforcing stimuli are identified by use of the Reinforcement Survey Schedule (an instrument developed by Cautela and Kastenbaum); by asking the client to suggest reinforcing events not included in the schedule; and by gleaning information from case histories, relatives, friends, etc.; 2) the client imagines the target behavior to be increased



in frequency; and, 3) the therapist says the word "reinforcement" whereupon the client changes the image in his mind from the target behavior to some previously determined reinforcing stimulus. Clients are asked to practice the procedures at home, with the optimal time being before meals.

Covert positive reinforcement has been used successfully with homosexuals to increase the frequency of female-approach behaviors (Cautela, 1970a), and to increase relaxation during an examination (Cautela, 1970a). The problems that are reported with this technique are clients lack of outside practice and the client being unable to imagine the scene vividly. To combat the latter, Cautela suggests that the therapist use as much detail as possible when describing the target behavior scene.

Covert Negative Reinforcement (CNR) increases the probability of a response by instructing the subject to imagine an aversive event, and to terminate it by imagining the response to be increased. For example, a child with a school phobia problem imagines an aversive stimulus of his arm being torn open and bleeding; this image is terminated by the image of the target behavior to be increased in frequency, i.e. the child walking to school saying, "It doesn't matter if the teacher criticizes me today." In considering some of the practical aspects of CNR, Cautela notes that over time, the aversive stimuli become less frightening. The subjects learn to make an appropriate response after an aversive stimulus. From a "classical" operant point of view, however, the above paradigm does not exactly fit the definition of negative reinforcement, in which a response must be emitted before the presentation of an aversive stimulus (White, 1971).

These techniques are so new that there has been little experimental verification of them. One study (Cautela and Wisocki, 1969) provides support for the concept of CNR, but does not test the hypothesis directly. College students were given an attitude questionnaire concerning attitudes toward the elderly. They were asked to imagine that they were in an accident and their life was saved by an elderly person. The results were significant ( $P \leq .01$ ) in showing positive changes in attitudes towards the elderly. The control group showed a small non-significant negative change. Thus, it appears that when clients are asked to imagine covert reinforcing and aversive stimuli (as measured by an attitude scale), behavior changes in directions predictable from knowledge of principles of behavior.

The techniques described thus far require therapeutic intervention by a trained psychologist. Much of our behavior, however, is maintained in the absence of extrinsic reinforcement with immediate reinforcers being ignored for long term contingencies (Kanfer, 1971). We reinforce ourselves for decisions that are "right" and make self-deprecating statements when we are



"wrong." Self reinforcement often maintains our behavior in the absence of environmental feedback. These self reinforcing events have a number of distinguishing characteristics. Bandura and Perloff (1967) characterize these events as follows: they include a self prescribed standard of behavior (usually determined by the subject's history); a social comparison process (to evaluate the behavior); the reinforcers are under the subject's own control; and, the subject serves as his own reinforcing agent.

### Techniques for Decreasing the Frequency of Behaviors

Self-control can be used to decrease the probability of the subject making maladaptive approach responses. One can find many different definitions of self-control in the literature (Cautela, 1969; Kanfer, 1971; White, 1971). They all share the concept that the subject emits a behavior which changes the environment such that the probability of another response in the subject's own repertoire is changed. O'Leary (1968) and Bem (1967) have investigated the effect of self-instruction or verbal self-control in behavior in children. Bem found that verbal self-control could be shaped in children as young as three years. O'Leary found that when first grade male children instructed themselves not to touch a forbidden object, they refrained from touching it 94% of the time. Thus, there is some evidence that verbalizations of contingencies by young children can increase the probability of their emitting self-controlling responses.

Another technique which has shown to be useful as a clinical tool in the self-control of maladaptive behaviors has been self-punishment, i.e. the presentation to oneself of aversive consequences for inappropriate behaviors. One of the more popular aversive stimuli which clients have self-administered is electric shock. Bucher and Fabricatore (1970) instructed a schizophrenic patient who complained of hallucinations to shock herself at the onset of voices. The frequency of hallucinations decreased to zero in several days. After the patient was discharged, however, the hallucinations returned.

An approach also used to decrease maladaptive approach behavior has been developed by Cautela (1969) who originated the techniques of covert sensitization or "aversive imagery." In this procedure, the target behavior to be decreased in frequency is imagined, and is followed by imagination of an aversive stimulus. An example which Cautela gives is that of an alcoholic in therapy to decrease the frequency of his drinking behavior. The client is relaxed, and the therapist asks him to imagine the sequence of events leading up to his taking a drink. Just as he imagines bringing the glass to his lips, he is told to imagine he is sick to his stomach and is vomiting. The emetic scene is described in nauseating detail. The scene is alternated with scenes in which the client refuses a drink and is reinforced by a



pleasant image (i.e. a cool breeze, taking a swim, etc.). The client is encouraged to practice this at home. Kolvin (1967) reports a successful use of this technique with adolescents and Harris (1969) with weight reduction.

In another form of self-punishment, the individual removes or avoids some positive consequence after the occurrence of an undesired target behavior (Mahoney, 1972). Elliot and Tighe (1968) used threatened loss of money to decrease the frequency of smoking. Subjects forfeited money in the beginning of the program, and earned it back by not smoking. A weight reduction program at Western Michigan University entitled "Fat City" (Mallot, 1971) is run along the same lines. For each pound gained during the program, money is forfeited by the subject. The pooled monies from the group are then donated to an unattractive "charity" such as the American Nazi party. Anecdotal data indicate some measure of success with this program.

Some of the earliest formulations of self-control employed the use of stimulus variables (Skinner, 1953; Fox, 1962; Ferster, Nurnberger, and Levitt, 1962). Ferster et al (1962) outlined a program to control eating behavior. Much of the program relied upon narrowing the range of existing stimuli which govern eating and the identification of the "Ultimate Aversive Consequences" of overeating. He used both situational and temporal stimulus control. Fox, in a now classic paper, relied heavily upon stimulus control to improve study behaviors. He noted that once distracted, one should not reinforce distraction by stopping studying but should emit some low response-cost on-task behavior and then terminate studying.

### Methodological and Measurement Problems

One of the biggest problems facing the behavioral scientist interested in researching the area of covert behavior concerns the accurate and precise recording of data. Since covert behavior is by definition non-observable, one must rely upon the verbal reports and self-recorded data. Kanfer (1970) discusses this issue in some depth and notes that, since one can not document the occurrence of a private event, one approach would be to correlate its occurrence with an observable event. Kanfer discusses positive clinical applications of self-monitoring as a reactive measure; that self-monitoring can be made a precondition for new adaptive behaviors and could be a measure of the client's commitment to change. Watching the frequency of one's own behavior change can become a reinforcer in and of itself to a client so committed. He notes that as the client gains greater skill in the use of self-regulated contingency systems, the observing response would be incompatible with the occurrence of the target behavior and could be chained to other therapeutically beneficial behaviors.



Further methodological problems which face the researcher in self-management areas are reviewed by Mahoney (1972). He notes that one of the biggest problems is in the maintenance of a self-management program. This contractual problem has not been dealt with directly as of yet. Maintaining client change is one of the major problems in any treatment program. Self-management seems to be a viable way to attempt to maximize treatment effects while minimizing the amount of professional time needed per client. Follow-up studies which report on this area have not yet appeared. Another research and methodological problem is attributed to the demand characteristics of a particular technique and especially to self-monitoring. McFall (1970) asked subjects to record when they had the urge to smoke but did not smoke, and compared changes in rate of subjects who were asked to record instances in which the cigarette was actually smoked. In the former case, the frequency of cigarette smoking decreased; in the latter case, the frequency of cigarette smoking increased, with less time being taken smoking each cigarette. Thomas (1972) asked teachers to self-monitor videotapes while they were in their classrooms and trained them to record instances of approval, disapproval; he found the recording process was reactive as their frequencies of approving and disapproving behaviors changed over time. Thus, one must be aware not only of the reactive nature of self-monitoring, but implicit demands made by the therapist in the type of behaviors he asks a subject to record.

### Comments

The implications of self-management research are widespread and this area is virtually unexplored. When reviewing the dates of the articles cited, one notes that the majority have been published since 1968. These techniques produce change in client behavior in the expected direction, and lend themselves to a client-therapist relationship in which the therapist can teach the client to maintain change produced in therapy.

This paper has discussed some of the techniques currently used to increase or decrease the frequency of covert events. Probably the most critical issues center around the collection of data. Authors such as Kanfer, McFall, and Thomas have demonstrated that data recording is reactive, it affects that which is observed. If the therapist can learn to manipulate data recording procedures to maximize the probability of successful therapy outcome, a powerful tool will be added to his repertoire.



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# A CONCEPTUAL SCHEMA OF CLASSROOM GROUP CONTINGENCIES<sup>1</sup>

Leon Litow and Donald K. Pumroy

## Necessity of Classroom Group Contingencies

Within the last few years studies in the classroom setting have extended the application of operant conditioning techniques in managing the behavior of individual class members to the behavioral management of the whole class. This extension of operant conditioning techniques from the individual class member to a group of class members has been necessary for two reasons: (a) economical feasibility and practicality, (b) utilization of the peer group in controlling and enhancing classroom behavior.

## Economical Feasibility and Practicality

Quay, Werry, McQueen, and Sprague (1966) have pointed out that the economics of public schools require the development of behavior-remediation techniques that will allow children to be handled by few adults as possible. Without the extension of behavior-remediation techniques to group situations, Quay *et al.* (1966) view behavior-remediation techniques developed on an individual basis as remaining economically unfeasible. Hall, Lund, and Jackson (1968) have suggested that it would seem more practical and effective to place simple direct control of classroom attention in the hands of the teacher by using group contingencies. Bushell, Wrobel, and Michaelis (1968) have stated that in most situations individually programmed contingencies for the responses of each group member are not practical. Bushell *et al.* (1968) have proposed that uniform criteria be designed for group settings according to which a number of individuals are to be rewarded or punished. Wasik (1970) has pointed out that the systematic application of behavior-modification techniques to an individual can become prohibitively expensive in terms of time and effort, especially in those social settings where it is necessary to plan for many individuals. Wasik (1970) has suggested that the simultaneous arrangement of selected environmental contingencies for a group of individuals could lower the cost per individual of systematically applying behavior-modification techniques. In demonstrating that group reinforcement was as effective as individual reinforcement, Herman and Tramontana (1971) have tentatively concluded that a group reinforcement procedure would be more efficient than individual reinforcement procedures in classrooms and other group settings in that "it is much easier to dispense one reinforcer to the class than to dispense one to each class member [p. 118]."



## Utilization of the Peer Group

Sulzbacher and Houser (1968) have stated that a unique advantage of applying contingencies to an entire group for the deviant behavior of an individual is the removal of the social consequences reinforcing the deviant behavior. Minuchin, Chamberlain, and Graubard (1967) have obtained evidence indicating that with disturbed delinquents rewards and teaching coming from peers are more effective than rewards and teaching associated with authority figures such as teachers. Graubard (1969) has stated that in the battle between peer and school values the delinquent group "must consciously legitimize learning so that the individuals in the group do not have to concern themselves with loss of status for learning [p. 271]." In her work with low-achieving adolescent Hawaiian boys Sloggett (1971) has cited evidence by Gallimore and Howard (1968) which indicated that Hawaiians are motivated primarily by peer pressure, affiliation, and avoidance of social disapproval. Sloggett (1971) further cites an example in which Hawaiian school children refused to accept material rewards such as cokes or candy for high grades or successful competition unless the rewards could be shared with their friends. In order to increase the classroom productivity of low-achieving Hawaiian adolescent boys, Sloggett (1971) has described a program in which teams successfully utilized the natural pressures of peer groups "rather than force the boys into the mold of an educational system that typically emphasized competition and individual achievement [p. 64]." Hamblin, Hathaway, and Wodarski (1971) have reported data which have indicated that certain group reinforcement contingencies accelerate learning more than do individual reinforcement contingencies. In addition, Hamblin *et al.* (1971) have reported that the accelerated learning rates are by-products of the acceleration of spontaneous peer tutoring, maximally occurring under low-performance group contingencies. Hamblin *et al.* (1971) have consequently suggested that spontaneous peer tutoring may be used as a teaching procedure in designing a classroom learning environment to accelerate learning.

## Categorization of Classroom Group Contingencies

In the research literature the term "group contingencies" has generally been used to connote the application of operant techniques to the behavioral management of groups of children in the classroom setting. In reviewing the research literature, it has become evident that the term "group contingencies" is a general label encompassing three types of group-oriented contingency systems: dependent, independent, and interdependent group contingencies.<sup>2</sup>

### Dependent Group-Oriented Contingency Systems

Such a contingency system is established when a response



contingency is in effect for one or two group members selected on a priori basis, but the response contingency is not simultaneously in effect for the remaining group members. The responses of the one or two selected group members then result in consequences for the whole group. An example of this type of contingency system would be making free-time activities for the entire class contingent upon the class's poorest math student successfully completing 20 of 30 arithmetic problems. Failure to achieve this level of performance would result in no class member receiving the free-time activities, regardless if the other students reached the same level of performance. Consequently, the remaining class members are dependent on the selected class member's performance for the stated favorable consequences. This type of contingency system implicitly controls the behavior of the group in that the group members increase the probability of receiving favorable consequences contingent on aiding the one or two members emit the appropriate behaviors. The dependent group-oriented contingency system has been basically applied in classrooms where peer influence is brought to bear on a member's deficient performance.

The utilization of peer groups has aided in modifying the behavior of a hyperactive child (Patterson, 1965; Patterson, Jones, Whittier, and Wright, 1965), in increasing the popularity of children (Alden, Pettigrew, and Skiba, 1970), in modifying deviant child behavior (Coleman, 1970; Wolf, Hanley, King, Lachowicz, and Giles, 1970), in accelerating academic progress (Evans and Oswalt, 1968), and in maintaining appropriate social and academic behavior (Walker and Buckley, 1972) when a student's performance earned reinforcement for himself and his classroom peers.

### Independent Group-Oriented Contingency Systems

Such a contingency system is established when the same response contingencies are simultaneously in effect for all group members, but these response contingencies are applied on an individual basis. An example of this type of contingency system would be making classroom free-time activities for any class member contingent upon any class member successfully completing 20 of 30 arithmetic problems. Those class members who failed to achieve this level of performance would not be allowed to receive the free-time activities. Consequently, in this type of contingency system each member's outcomes are not affected by (independent of) the behaviors of the other group members. The independent group-oriented contingency system has been extensively applied in special education classrooms and less extensively applied in regular public school classrooms.

The use of individually administered token reinforcements for whole classes has been reported to increase the rate of study behavior and academic performance (Birnbauer and Lawler, 1964; Birnbauer, Bijou, Wolf, and Kidder, 1965; Bijou, Birnbauer,



Kidder, and Tague, 1966; Nolen, Kunzelmann, and Haring, 1967; Bushell, Wrobel, and Michaelis, 1968; Clark, Lachowicz, and Wolf, 1968; Wolf, Giles, and Hall, 1968; McKenzie, Clark, Wolf, Kothera, and Benson, 1968; Haring and Hauck, 1969; Hewett, Taylor, and Artuso, 1969; Zimmerman, Zimmerman, and Russell, 1969; Bednar, Zelhart, Greathouse, and Weinberg, 1970; McIntire, Davis, and Pumroy, 1970; Wolf, *et al.*, 1970; Chadwick and Day, 1971; Ferritor, Buckholdt, Hamblin, and Smith, 1972; McLaughlin and Malaby, 1972a) and to decrease the rate of disruptive behavior (Quay, Werry, McQueen, and Sprague, 1966; O'Leary and Becker, 1967; Kuypers, Becker, and O'Leary, 1968; Martin, Burkholder, Rosenthal, Tharp, and Thorne, 1968; Meichenbaum, Bowers, and Ross, 1968; O'Leary, Becker, Evans, and Saudargas, 1969; Broden, Hall, Dunlap, and Clark, 1970; McLaughlin and Malaby, 1972b).

Teacher attention contingent upon the individual behaviors of all students in a classroom has been reported to increase the rate of study behavior (Hall, Panyon, Rabon, and Broden, 1968a), to decrease the rate of disruptive behavior (Madsen, Becker, Thomas, Koser, and Plager, 1968; McAllister, Stachowiak, Baer, and Conderman, 1969; Hall, Fox, Willard, Goldsmith, Emerson, Owen, Davis and Porcia, 1971), and to increase the following of instructions (Schutte and Hopkins, 1970).

Based on Premack's principle of reinforcement, free-time or special activities contingent upon the individual behaviors of all students in a classroom have been reported to increase desirable classroom behavior (Homme, deBaca, Define, Steinhorst, and Rickert, 1963; Osborne, 1969; Wasik, 1970) and to improve academic performance (Lowitt, Guppy, and Blattner, 1969; Hopkins, Schutte, and Garton, 1971).

### Interdependent Group-Oriented Contingency Systems

Such a contingency system is established when the same response contingencies are simultaneously in effect for all group members, but these contingencies are applied to the behavior of the group as a whole. An example of this type of contingency system would be making classroom free-time activities for the entire class contingent upon the entire class successfully completing on the average 20 of 30 arithmetic problems per student. Failure to achieve this level of performance by the class would result in no class member receiving free-time activities. Consequently, in this type of contingency system, each class member's outcomes depend (are interdependent) upon the level of group performance. Interdependent group contingencies can be based on each group member meeting a set criterion level before the group can be reinforced. Hamblin *et al.* (1971) have structured group performance contingencies on the basis of high, low, or average performances in the group. The interdependent group-oriented contingency system has been applied in a variety of school settings. Of the three types of group-oriented contingency systems, the



interdependent group-oriented contingency system has received the most recent empirical evaluation in the classroom setting.

There have been basically two types of groupings reported in the research literature dealing with interdependent group contingencies. Some studies have focused on the whole class as the group (Hotchkiss, 1966; Gallagher, Sulzbacher, and Shores, 1967; Hall, Panyan, Rabon, and Broden, 1968b; Sulzbacher and Houser, 1968; Graubard, 1969; Schmidt and Ulrich, 1969; Andrews, 1970; Axelrod, 1970; Graubard, Lanier, Weisert, and Miller, 1970; Jacobs, 1970; Packard, 1970; Prentice, 1970; Hall, Fox, Willard, Goldsmith, Emerson, Owen, Davis, and Porcia, 1971; McNamara, 1971; Turknett, 1971; Eleftherios, Shoudt, and Strang, 1972). Other studies have focused on dividing the class into small groups or teams which are either competitive (Barrish, Saunders, and Wolf, 1969) or noncompetitive (Quesenbery, 1971; Sloggett, 1971; Wasik and Simmons, 1971; Witte, 1971; Medland and Stachnik, 1972).

Various types of response contingencies have been used in consequating interdependent group behavior in the classroom setting. The types of response contingencies have included: 1) positive reinforcement contingencies in which the group earns food (Prentice, 1970), money (Turknett, 1971), grades (Witte, 1971), or tokens (Graubard, 1969; Graubard, Lanier, Weisert, and Miller, 1970; Packard, 1970; Hamblin, *et al.*, 1971; Herman and Tramontana, 1971; McNamara, 1971) contingent on specified group behaviors; 2) positive reinforcement contingencies in which the group earns money, free-time, or special activities for appropriate group behavior and/or response-cost contingencies in which the group loses earned free-time or special activities for inappropriate group behavior (Hotchkiss, 1966; Schmidt and Ulrich, 1969; Andrews, 1970; Jacobs, 1970; Hall, Fox, Willard, Goldsmith, Emerson, Owen, Davis, and Porcia, 1971; Levin, 1971; Eleftherios, Shoudt, and Strang, 1972); 3) response-cost contingencies in which the group loses previously established free-time or special activities (Gallagher, Sulzbacher, and Shores, 1967; Hall, Panyan, Rabon, and Broden, 1968b; Sulzbacher and Houser, 1968; Barrish, Saunders, and Wolf, 1969; Axelrod, 1970; Wasik and Simmons, 1971; Medland and Stachnik, 1972). Several studies have been reported in which individual reinforcement contingencies have been concurrently utilized with the interdependent group contingency (Graubard, 1969; Schmidt and Ulrich, 1969; Graubard, Lanier, Weisert, and Miller, 1970; Jacobs, 1970; Hamblin, *et al.*, 1971; Wodarski, Hamblin, Buckholdt, and Ferritor, 1972).

### Relative Effectiveness

An empirical question may be raised concerning the relative effectiveness among the three types of group contingencies in managing classroom behaviors. There have been no studies explicitly assessing the amount of classroom control exerted by



implementation of dependent group contingencies. However, it would appear reasonable to hypothesize that the dependent group contingency system exerts the least control over a whole class in that this contingency system implicitly controls classroom behavior, whereas the other two group contingency systems explicitly control classroom behavior.

Twelve studies have compared the relative effectiveness of independent group-oriented contingencies versus interdependent group-oriented contingencies. Five studies have reported that there were no statistically significant differential effects between the two types of contingencies (Axelrod, 1970; Prentice, 1970; Herman and Tramontana, 1971; Levin, 1971; Turknett, 1971). Six studies have reported that the interdependent contingency proved superior to the independent contingency (Graubard, Lanier, Weisert, and Miller, 1970; Jacobs, 1970; Wodarski, 1970; Hamblin, et al., 1971; McNamara, 1971; Witte, 1971). One study reported that the independent group contingency was more successful than the interdependent group contingency (Ruppert, 1971).

If further studies can empirically demonstrate that interdependent group-oriented contingencies are as effective as individual contingencies and independent group-oriented contingencies, the applied behavior scientist will have an array of techniques that are practical, effective, and cognizant of peer group pressures in the classroom setting. More widespread use of interdependent group contingencies will be seen as advances in behavioral technology offer devices for monitoring classroom behavior and for regulating group contingencies in the classroom.

### Further Evaluation

Although the application of classroom group contingencies (especially interdependent group contingencies) appears to be increasing, certain precautions need to be emphasized. O'Leary and Drabman (1971) have urged caution in initiating group contingencies because of:

(a) the possibility that a particular child cannot perform the requisite behavior; (b) the resulting possibility of undue pressure on a particular individual; and (c) the possibility that one or two children may find it reinforcing to subvert the program or "beat the system" p. 390."

The dangers in implementing group contingencies point towards the need for further research to determine the limitations of group contingencies. Yet the potential of applying group contingencies in the classroom has not been fully explored. Further empirical investigations of classroom group contingencies will provide one more fertile area for improving our educational institutions through applied behavior analysis.



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# A COMPARISON OF INDIVIDUAL AND GROUP CONTINGENCIES WITH THIRD AND FOURTH GRADE CHILDREN

Lou Levin

A large body of research is now available which substantiates the effectiveness of operant conditioning in classroom settings. While considerable attention has been given by researchers to the management of the behavior of individual children, some studies have also emerged which investigated the effects of these techniques with groups of children. Very few studies using groups, however, have used total group contingencies in the sense of the S's being interdependent with each other for reinforcement.

The potential benefits of interdependent group contingencies are perhaps most evident from a standpoint of efficiency. The teacher, for example, would spend less time and effort in offering reinforcement to a group of children than in attending and offering reinforcement to each individual. This does not imply that everyone always does the same thing at the same time; at times, children might be working on individually-tailored tasks, with reinforcement contingent upon everyone completing whatever they're working on. There also seem to be some times, however, when it is most practical to have groups of children involved in the same activity; at these times, the use of interdependent contingencies would seem to be most efficient.

Further, it appears likely that some desirable behaviors, such as those that constitute cooperation, are learned best by children as a result of being reinforced as a group. This learning may be accomplished directly, as by reinforcing children directly and explicitly for cooperative behaviors; or perhaps it may be accomplished somewhat indirectly by reinforcing for completion of task, a less obvious form of cooperation. The latter approach was chosen in this study; cooperation, however, was not investigated in this research.

Finally, it may be that, perhaps because of peer pressure, group contingencies are extremely powerful in that the group reinforcers combine with peer pressure (social reinforcers) to increase the overall potency of the contingency. The relative strength of interdependent contingencies is the subject of this research.

The present study was conducted in an attempt to investigate the effectiveness of a group contingency compared to that of an individual contingency with children working on an academic task, in this case SRA reading materials. The behaviors under investigation were those of being "on-task," as defined by various specified responses. The subjects were forty children in the third and fourth grade at the Lida Lee Tall Learning Resource Center, at Towson State College. The subjects were randomly



assigned to one of ten groups, with four children in each group. Three research assistants at the Center were trained to function as teachers for the experiment. Five of the ten groups were treated by an individual contingency--as soon as any child finished his or her work for the day, they could go to the Reward Room, where games, books, toys, etc., were available. The other five groups were treated by a group contingency--all four children in the group must have completed their work before any of them could go to the Reward Room. Observers, beginning psychology students at Towson, recorded the amount of time spent by each of the groups in appropriate study behaviors. In addition to comparing the rates of study behavior that were generated by the two contingencies, the rates of the whole experimental group during a baseline phase, in which no contingencies were in effect, were compared with rates during a treatment period.

The data obtained indicated that there were no significant differences between the effects of the two treatments. While a failure to find significance in a particular study should not be interpreted as indicating no real difference in the treatments applied, subsequent studies reported by various other investigators have also consistently failed to find any greater effect for individual contingencies; in fact, when differences have been found they tend to be in favor of greater effectiveness for group contingencies. Therefore, these results can be taken as part of the emerging trend suggesting that group contingencies are at least as effective as individual contingencies in controlling human behavior.

It should be pointed out, however, that there were also no significant differences found between the baseline and treatment rates for the whole group, suggesting that reinforcement contingencies per se had no significant impact on this population. Several possible explanations were plausible, the most appealing of which is that the highly skilled teachers of these children were so effective that they were eliciting near-maximum performance from the students; the baseline rate of 85% on-task behaviors for the whole group lends credence to this suggestion. The short duration of the study (twelve school days) and possible "Hawthorne" effects would also seem plausible as explanations for these results. Regardless of why it happened, however, the experimenters were left with the question of how the treatments might differ in their effects under conditions which permitted a significant impact by reinforcement contingencies. The subsequent research alluded to previously has adequately controlled this variable; thus, the currently available data clearly substantiates the efficacy of group contingencies vis a vis individual contingencies.

While their efficacy is becoming increasingly well-substantiated, the differential effects of interdependency as manifested in group contingencies remains to be empirically



demonstrated. Further research is currently being planned which will be addressed to the effect of these contingencies on cooperative behaviors, as well as on sets of behavior which might be classified as related to the child's "self-concept." Another aspect of the proposed study is the investigation of the generalizability of these behaviors from the learning situation to other classroom and playground situations.

The concept of mental health has undergone a change from a medical model to an ecological one. Yet few school authorities have attempted to behaviorally define the necessary criteria for an ecologically sound system. Instead they focus upon traditional goals and behavior patterns based on the fallacious medical model of mental health. However, it is encouraging that recent literature now seems to support the ecological model. A general feeling exists that our schools are too rigid and too unresponsive to humanistic needs. Jonathan Holt has repeatedly called for more freedom of choice and less of fear. The term "push out" has been coined to apply to those students who are forced out of the school systems because they cannot adjust to the predetermined behavior patterns expected of them.

Guidance counselors need to assess their school as a social ecosystem so as to know its effect on the establishment, maintenance, and extinguishment of behaviors. The criteria behaviors around which this assessment is carried out are those commonly agreed upon by development specialists (i.e., Havighurst, Erikson) as desired and undesired. Types of desired behavior would be those which are personally or socially constructive while undesired behavior would be nonconstructive and defeating. This study will be concerned with the development and assessment of spontaneous behavior. Hopefully this will serve as a guide for counselors who are searching for methods which will initiate the incorporation of desired behaviors into a school system.

### Statement of the Research Problem

Prior to the actual method of research, an assumption had to be made as to whether or not a particular type of spontaneous behavior was a desirable one to establish within a high school classroom. The specific spontaneous behavior did involve the student in a constructive way with his environment. The behavior was not personally or socially defeating. Thus this type of spontaneous behavior was regarded as desirable behavior. The research problem is concerned with the use of simple social reinforcement procedures to increase the amount of desired student spontaneous behavior. A basic question needs to be: Can a teacher be effectively trained in such reinforcement techniques so that he can achieve an increase in the type of classroom behavior he desires?



# SPONTANEOUS BEHAVIOR IN A HIGH SCHOOL CLASSROOM

Lark Ann Matis

## Introduction

Because of the compulsory nature of the American educational system, schools are in an influential position regarding the mental health and attitudes of future generations. The concept of mental health has undergone a change from a medical model to an ecological one. Yet few school authorities have attempted to behaviorally define the necessary criteria for an ecologically sound system. Instead they focus upon traditional goals and behavior patterns based on the fallacious medical model of mental health. However, it is encouraging that recent literature now seems to support the ecological model. A general feeling exists that our schools are too rigid and too unresponsive to humanistic needs. Jonathan Holt has repeatedly called for more freedom of choice and less of fear. The term "push out" has been coined to apply to those students who are forced out of the school systems because they cannot adjust to the predetermined behavior patterns expected of them.

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Similarly there are other questions which could be asked which involve the effective training of students as observers as well as the probability of a significant decrease in undesired behavior along with the increase in desired behavior.

### Method

The method used consisted of the following steps: 1) behaviorally defining the term spontaneous; 2) training an observer; 3) obtaining baseline data; 4) introducing the condition of positive verbal reinforcement; 5) obtaining a second recording of the frequency of spontaneous behavior.

Initially the experimenter spent several weeks observing a variety of classes. Classes which were noted for an atmosphere of involvement and spontaneity were contrasted with those exhibiting a more traditional, structured environment. The experimenter hoped to be able to make a distinction between spontaneous and non-spontaneous motor behavior. However, it was impossible to specify the motor behavior of several students and have it be applicable to all students who behave spontaneously. Based on the initial observations there was a type of spontaneous behavior which did seem to occur at the greatest frequency. This allowed the experimenter to behaviorally state that spontaneous behavior was occurring whenever the subject verbally responded to the teacher's activities without raising his hand.

The classroom involved in the study was selected based upon the following conditions: 1) that the teacher was willing to cooperate; 2) that the students had an average range of IQ's; 3) that the activities would be teacher-directed for the duration of the experiment. It was necessary that the activities be teacher-directed (rather than oral reports by students, etc.) because the teacher was going to be learning the new response pattern, which would hopefully be effective in changing the classroom climate. The subjects consisted of 28 tenth graders in a traditional biology class at Arundel Senior High School, Gambrills, Maryland. Their IQ's ranged from 95 to 120. During the baseline observation period, the students were starting a two week unit on circulation. The teacher lectured every day of the week except Thursday, which was spent doing laboratory exercises. The class was desensitized to the observer because the observer had previously worked in the classroom for six months as a laboratory aide.

### Training of Observer

A week before the gathering of baseline data was to take place, the experimenter sat down with the observer and explained to her that some information was needed for a class at the University of Maryland. The definition of the term spontaneous



behavior was printed on piece of paper as follows: student will verbally respond to the activities of the teacher without raising his hand. The observer was asked to read the definition and ask questions about it. The back side of the paper had columns drawn on it with the words 1st Day, 2nd Day, 3rd Day, 4th Day, 5th Day at the top of the columns. It was explained to the observer that she would tally the number of times she saw the spontaneous behavior occurring in a classroom. The experimenter also had a sheet identical to the observer's.

Every day for five days the experimenter and observer went into classrooms, other than the one designated for the experiment, to record the frequency at which spontaneous behavior was occurring. Different classrooms were used for training purposes only to expose the observer to as many different situations as possible. The experimenter and observer sat at opposite ends of a room and kept a tally for 20 minute intervals each day. The observer was said to be trained when her tally matched the experimenter's with a leeway of plus or minus one. C. F. Medley and others (1969) have emphasized that explicitness of instruction and accuracy of recording are vital to the training of an observer. On the 3rd, 4th, and 5th days of training, tallies were perfectly correlated. During the training period, the observer learned that the following responses were to be classified as spontaneous (cues for classification were taken from Carter, 1951; Kounun, 1970; and Trickett, 1970):

- 1) laughter after the teacher makes a statement
- 2) direct question of one student to another, if germane to the teacher's topic
- 3) any relevant verbal response, no matter how derogatory, as long as it was accompanied without hand raising

The observer was also able to classify these actions as non-pertinent verbalizations:

- 1) students who talk to one another about something other than the subject matter
- 2) any verbalization about something outside the classroom, the window, or in the hall
- 3) any response made to the teacher which was not pertinent to the activity of the teacher

### Obtaining Baseline Data

The observer recorded baseline data on a tally sheet, identical to the one used during the training phase. The days were designated 1, 2, 3, 4, 5. She stayed for the entire period and noted the frequency of spontaneous behavior for one 10-minute interval each period. She recorded only when the activity was teacher-directed. The interval of ten minutes was chosen to have



a workable number of responses. As previously mentioned, the class was desensitized to her presence, as she was supposedly performing her usual activities as a lab assistant. The observer also used a stop watch to record the amount of time the teacher spent teaching. Daily tally sheets were kept and submitted to the experimenter at the end of the week.

### Introduction of Positive Verbal Reinforcement

At the end of day 5, the experimenter approached the teacher to explain how she could use positive verbal reinforcement to increase the spontaneous behavior in her classroom. She expressed a desire to have students more alert and interested in her activities. There was also some concern about hopefully extinguishing the non-pertinent verbalizations which occurred. The teacher stated that she had not been conscious of using any form of positive verbal reinforcement. The method of responding to a student who had displayed spontaneous behavior was role played by the teacher and the experimenter. As the teacher made the verbalizations without raising her hand the experimenter responded with phrases: "That's a very interesting point," "So glad you mentioned that," or "I'm pleased to hear you respond that way." The use of a smile and a sincere tone of voice was stressed. As the teacher tried her new response patterns with the experimenter, she moved out from behind her desk and towards the one responding. It was decided that this new behavior was an appropriate one to effectively implement the treatment.

The observer recorded the frequency of spontaneous behavior and timed the periods of teacher verbalization for the next five days.

### Results

The graphical summary of data entitled Frequency of Spontaneous Behavior, final page of this report, indicates that the introduction of positive verbal reinforcement did effectively increase the frequency of spontaneous behavior. Below is the data collected on the amount of teacher talking time.

	Baseline	After Introduction of Reinforcement
Day 1	32 minutes	15 minutes
2	19 minutes	14 minutes
3	29 minutes	11 minutes
4	18 minutes	14 minutes
5	21 minutes	13 minutes
Total	119 minutes	67 minutes

The amount of time the teacher spent talking seemed to decrease by approximately one-half.



## Discussion

Several trends can be noted from the study. After the introduction by the teacher of positive verbal reinforcement, the frequency of previously defined spontaneous behavior did increase. At no time after the treatment began did the frequency ever fall below the baseline. Since the behavior was supposed to be characteristic of involvement as well as attention to the activities of the teacher, it is reasonable to say that positive verbal reinforcement is very effective for producing behavioral change in a classroom. Since the experimenter was in an unnoticed position in a workroom at the back of the class during the duration of the study, it was possible to note several more trends of an objective nature.

The response sets which occurred in the classroom during the collection of baseline data seemed to always follow a standard teacher-student pattern: the teacher asks a question, a hand was raised, and a student would respond. After the introduction of positive verbal reinforcement the response sets markedly changed to a student-student-student pattern. As one student commented on something and received praise, more students spontaneously volunteered their comments. Also during the first two days after positive verbal reinforcement had been introduced, there was an increase in body movement. As the teacher moved from behind the desk and over to the particular student, the rest of the class actually seemed to lean forward and move around to see and hear what the teacher had to say.

The trends of increased frequency of spontaneous behavior; decreased teacher talking time; decreased teacher-student response patterns; and the increase of body movement were objectively assessed. There were other things happening in the classroom which were not measured. As the teacher was concentrating on rewarding specific students for their behavior, she was also putting other types of behavior on extinction. She did not verbally respond to, or she actually looked away when a student behaved in a manner which was classified as non-spontaneous. Previously she had responded with a form of verbal discipline whenever a pencil was dropped, etc. After the treatment of positive reinforcement started, those types of behavior were no longer attention-getting and they seemed to abate. A final event which was not measured dealt with the change in classroom climate. The students seemed somewhat amused by the new behavior of their teacher. Yet those students who raised their eyebrows and smiled when the teacher praised someone for a good comment, were the same ones who did not hesitate to say something themselves. There was a general atmosphere of amusement and interest, which contrasted to the neutral atmosphere before treatment.

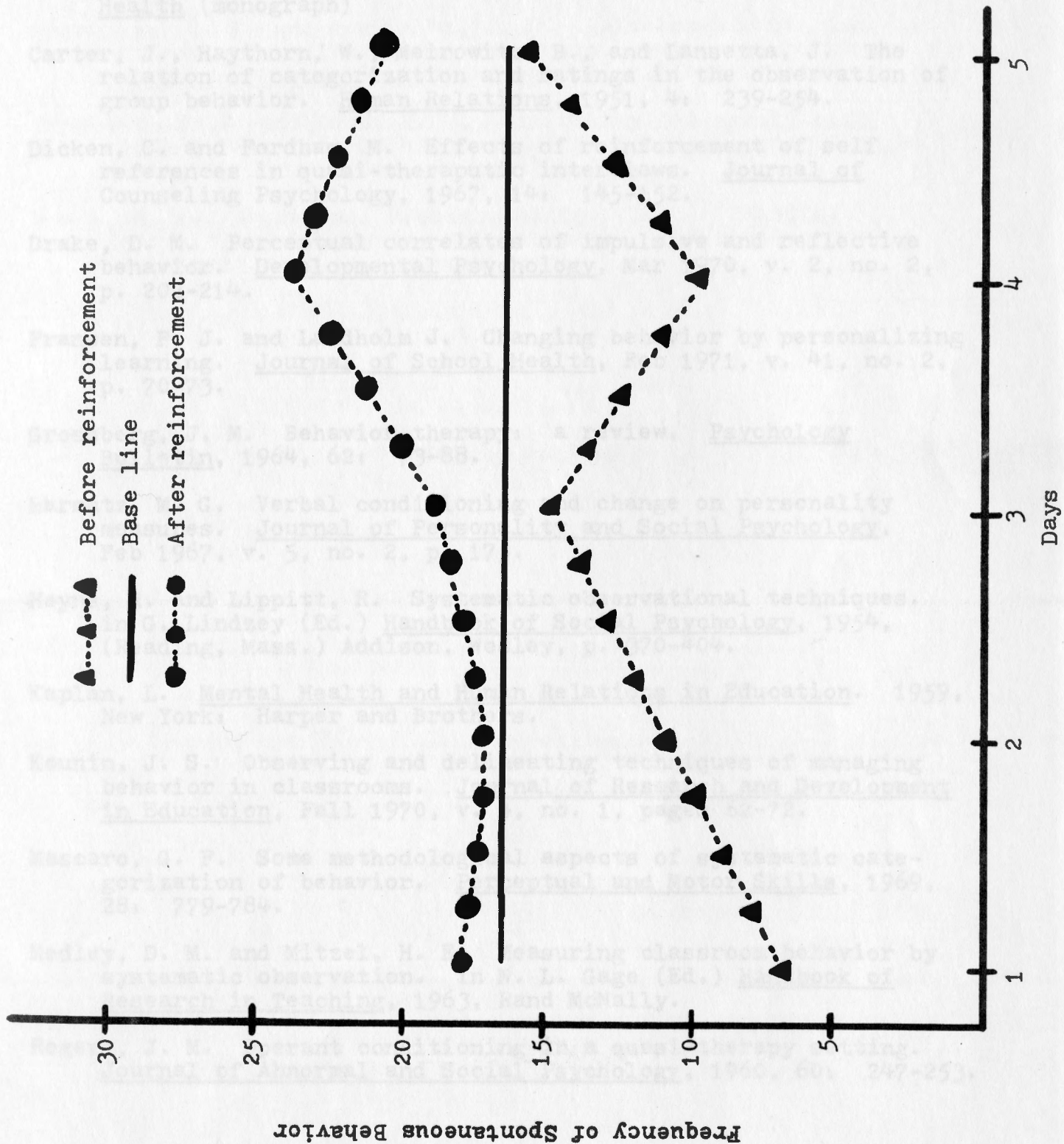
There are several limitations to this study which keep it from being complete. It is now necessary to allow the teacher to stop using positive verbal reinforcement. Then the new frequency



of spontaneous behavior could be observed and recorded to see if it really was the reinforcement which was effective in increasing spontaneous behavior. It could be possible that the specific subject matter, physical conditions, or social events at school had an effect on spontaneous behavior. Also, there should have been some measurable way to record the other events which were occurring in the classroom along with the increase of spontaneous behavior. And finally another limitation was that no assessment was made as to the decrease in non-pertinent verbalizations. In fact it is impossible to know whether these latter behaviors decreased at all. The teacher no longer responded to this type of behavior. It might be that there was an increase not only in desired spontaneous behaviors but also in the undesired ones.

In summary, the implication of this study seems to be that teachers can effectively change the behavior patterns within their classroom. If this specific spontaneous behavior is a desired behavior to establish within a school system, then there should be some guidelines a counselor can use to help a teacher become effective at bringing about this and other environmental changes.







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# CAREER DEVELOPMENT IN THE ELEMENTARY SCHOOL

Wallace J. Kahn

## Introduction

Frequently the literature on career development, vocational counseling and occupational choice theory (Baer and Roeber, 1964; Borow, 1964; Hoppock, 1957) has stressed the importance of relevant and accurate educational and occupational information. With this focus, a priority function of the counselor is seen as expediting the accumulation, dissemination and interpretation of occupation relevant information. This function is essential when viewed within the context of a school or agency with a post-adolescent clientele. Such an informational orientation does not seem warranted, however, when our concern is the career development of children within an elementary school setting. A more appropriate strategy in facilitating career development with pre-adolescents is the provision of broad, systematic and developmentally suited (Havighurst, 1953; Super, 1963) activities which span all age and grade levels within the elementary school. These activities, although different in form and content from those engaged in by adolescents and adults, are consistent with one of the basic principles of vocational development: an appropriate vocational choice is based on a lifelong process rather than a specific decision.

The "process" emphasis is crucial to the extent that Ivy and Morrill (1968) recommend that the term and concept of vocational choice be replaced with "career process;" thus denoting the dynamic nature of a process that is continually changing and never culminating. Although the developmental concept implying one or more culmination points will be retained in this paper, Ivy's provocative proposal is both intriguing and illustrative of new directions in vocational thinking.

Kenneth B. Hoyt (1972), a major proponent of this developmental perspective prefers to focus on the sequential acquisition and implementation of a personal value system. Under the rubric of "Career Education," Dr. Hoyt proposes specific school related activities from which children acquire personal values toward the world of work, and implement these values to insure that work becomes possible, meaningful, and satisfying. In contrast to Dr. Hoyt's position, Eli Ginzberg, chairman of the National Manpower Advisory Committee, does not believe that the elementary school is a logical place to do much more than the simplest orientation to the world of work, because the youngsters simply cannot get more than a very elementary orientation, and this can be done through instruction in English, history and civics (Ginzberg, 1969). The author generally agrees with Dr. Ginzberg, but contends that



this "elementary orientation," as with all basic elements, provides the crucial foundation or base from which complex structures are built. It is only from this base that future career decisions can be made. Furthermore, it is the contention of this writer that it is only within the elementary school that this "elementary orientation" to the world of work and careers can be systematically and consistently provided.

When viewed within a developmental framework, the function of the elementary school counselor involves creating for each child a systematic and continuous sequence of experiences from which the child can derive meaning from his environment, and build a broad repertoire of behaviors reflecting that meaning. From this perspective of the counselor's function, career guidance becomes inextricably woven into the fabric of the child's total educational experience. No longer can we divorce career development and vocational choice from education, and perceive each as separate and distinct fields.

By now the pragmatist within us might be responding with "Impossible! I neither have the skill nor the time to develop such a sequence of career development experiences. And besides, our school curriculum is already overloaded with academic subjects." Fortunately, many individuals have been pursuing this task over the past few years and have devised extensive, systematic programs which can be incorporated directly within the academic curriculum, obviating the necessity for preemption of other important educational activities. Although only one of these programs (Norris, 1963) will be discussed in depth with reference to child development, many practical and empirically tested materials and programs exist and will be cited briefly.

### Career Development of Children

The process of career development starts in early childhood when the child begins, through the medium of play, to take excursions into fantasy where he or she models in a play context the various educational and work roles performed by those significant others in his environment. The youngster in the primary grades (K-3) begins forming crucial ideas about himself as a learner and a worker. A natural curiosity about the jobs of people with whom the child has come in contact, where things come from, and how things work (White, 1959), combine with a broad, reinforcing array of experiences stimulate an interest in all sorts of people and the work they do; whether that work occurs in the home, school or community. The school can and must facilitate the child's exploration of these areas of high interest.

Specialized information, field trips, speakers, plays, games and discussions, all focusing on the world of work, can be incorporated into practically every element of the elementary school



curriculum. Norris (1963) suggests a grade level plan for the study of occupations in the social studies curriculum. The kindergarten child learns about the work activities of the immediate family, while the first grader learns about work activities within the home, school and church. In grade two the child learns about community helpers, as well as the functions of familiar stores and businesses in the neighborhood. Activities revolving around the transportation, communication and industry within the expanding community receive the emphasis in grade three. Throughout all of these activities, the emphasis is placed upon the generic meaning of work and the life styles rendered by various occupations.

By the time the child has reached the intermediate grades (4-6) his base of experience has broadened considerably. In the fourth grade the child learns about the diversity of occupations at the state level, with incipient exposure to state government work. It is not until the fifth grade, however, that major industries within the state are selected for study. It is also at this time that the professional, business and industrial life of the nation are studied. By grade six the child's program is expanded to include the broad range of occupations found within the total Western Hemisphere (Norris, 1963, p. 56). These experiences, with systematic input from teachers, counselors and parents, encourage a realistic appraisal of the child's own interests, abilities and goals. Although these experiences are presented along a graded continuum, they could just as appropriately be incorporated within a non-graded system which focuses on age level or performance based criteria.

Other programs and materials which might supplement these class activities or even constitute the entire career development program focus on such areas as a series of Career Day Programs (Knox, 1969); interview presentations (Hoppock & Brown, 1969); simulation problem-solving (Perrone & Thrush, 1969); comprehensive instructional packages (Programmed Work Awareness Kits, 1971); gaming (Boocock, 1967); role-playing (Bank, 1969); sociology and anthropology (New Jersey State Department of Education, 1969; Smith, 1970); information dissemination (Goodson, 1970); and self-concept in relation to socioeconomic and familial conditions (Faust, H. et al., 1968).

#### Some Empirical Justification for a Career Development Emphasis

As with any new theoretical or empirical position, there is initially a dearth of research to substantiate or invalidate its major propositions. Such a condition exists regarding a career development emphasis. As rapidly expanding programs and materials evolve, and present policy decisions on the part of professional and governmental agencies point conclusively in this



direction (Guidepost, February 9, 1973), we can anticipate extensive research endeavors to rapidly follow suit. To a degree, this evaluation phase has already begun; both in terms of the theoretical model and the empirical application.

Since Ginzberg (1951) and later Super (1953) first set forth the theory that occupational choice is a process that progresses through stages, subsequent research has generally substantiated the existence and impact of these stages on career development (O'Hara, Robert, 1959; Super, D. E., et al., 1960; Davis, Donald, et al., 1962). One research study (Davis, Hogan, and Strouf, 1962) which attempted to validate parts of Ginzberg's theory of occupational choice analyzed paragraphs of twelve-year-olds telling what they would like to be when they grew up. As might be expected from Ginzberg's hypothesis of this stage, over 60 per cent of the students made tentative career choices based upon their perceived capacities, interests and values. Thus, we have some evidence to concur with Bugg (1968) and Lynn (1966) that theories of career development warrant a key role in the vocational process.

A study by Lenore Harmon (1970) suggests that women maintain a narrow and constricted view of the world of work throughout childhood. Their later choices, although more varied, are still restricted to the stereotyped work roles they retain from childhood. Implications from this study add credence to the necessity for exposing both male and female children to the total spectrum of work. The elementary school has both the capacity and the responsibility to eliminate stereotyped sex and work roles through structured classroom activities. We cannot hope to abolish discriminatory sex-role behavior while work-roles remain distorted, unrealistic and inflexible.

A study by Perlman and Sara (1969) offers some optimism that self-understanding and awareness of career alternatives and goals in elementary school children can be significantly enhanced by systematic programming of their school experience. Super's Career Pattern Study (1967) indicates that the amount of career information possessed by boys in the ninth grade was related to their career behavior at a much later age. A Developmental Career Guidance Project (Leonard, G. E., 1969) was initiated in 1965 for the purpose of helping inner-city youth become more aware of themselves and all of the possibilities open to them in the world of work, and of providing systematic vocational planning assistance for each student. This comprehensive program stressed the developmental aspects of career education: aspiration, planning, and choice. Results from Guidance Surveys, which were administered to students in matched experimental and control schools, reveal that students engaged in the Project had significantly greater increases in level of aspirations, greater growth in occupational knowledge and planning, more frequent re-examination of their value structure, and more acceptable attitudes toward counselors



than students in non-Project schools. In support of these findings, Goff (1968) has shown that vocational knowledge, level of occupation, and realism of choice can be enhanced significantly through a planned career development program in the elementary school.

### Implications of a Career Development Model

As one surveys the new and varied programs, materials, activities and research emanating from a career development orientation, five discrete and yet interdependent implications seem to emerge. The first suggests that resulting from this heightened self-understanding can be a much more realistic desire to explore, discuss and assimilate ideas about a more specifically defined scope of jobs and careers. The second implication involves the child's attitudes toward what are ostensibly non-vocationally related issues. The individual's attitude toward achievement with school subjects, leisure time activities, as well as home and school relationships, plays a significant part in exposing him or her to the educational and work role. A third implication, perhaps the most abstract and difficult for a child to grasp, is that career development focuses upon the importance of providing adequate exposure and experiences for children throughout this elementary school period, which will in turn enable them to make more appropriate decisions regarding their work role at points of actual decision-making later in adolescence and adulthood. Exploration of the role and function of the various "community helpers" by children in the primary grades gives them an appreciation of all kinds of work that make up society. Through this exploratory process the child becomes aware of the necessity for a flexible attitude toward jobs and work.

The vocational literature (Borow, 1964) clearly emphasizes the fourth implication. Children can no longer choose a vocation at an early age and stick with it throughout their lives. There are many jobs coming into existence as well as becoming obsolete each year. It will become imperative that individuals be re-trained for different kinds of occupations throughout their work life. In order for the individual to be capable of re-training, it becomes vital that the child receive a basic, broad, futuristic education. A conceptualization of the world of work will add considerable relevance to the child's formal education.

A final implication posed is that for this knowledge of occupations to have any meaning to a child, the form and content of vocational activities and information utilized for an elementary school population must be relevant to the developmental levels of the children, as well as meeting the more general criteria discussed in Baer and Roeber (1964). Criteria proposed by these authors which have particular relevance for the elementary school counselor require that vocational activities and information must:



1.) emphasize the purpose and meaning of work to the individual and society, 2.) describe the nature and importance of major industrial groups, 3.) describe the nature and importance of broad occupational groups, 4.) explore the general educational requirements of the world of work and their relation to elementary school subjects, and 5.) emphasize the personal traits cultivated during the elementary years which are significant in various occupations.

### Summary and Conclusion

The primary emphasis of career development in the elementary school is to give the child a wide basis of experience so that when he or she does make a decision to go into an entrance occupation it will be a realistic decision, made as a result of many experiences, and also the result of a realistic appraisal of what the individual is both capable and desirous of doing. With a wider basis of experience the student will have a much greater probability of selecting an appropriate and satisfying job; and if job change becomes necessary due to technological, personal, or other reasons, the knowledgeable adult will be capable of making the transition with little difficulty.

It appears that vocational decision-making can be significantly enhanced when viewed from a developmental perspective. This conclusion should, however, be seen as tentative and suggestive. The intent of this exposition has not been to present absolutes but to present a stimulus for discussion, possible application, and further research. It is only through the latter that the ideas presented briefly here can be substantiated, perfected or discarded.

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## A SURVEY OF COUNSELING CENTER DEMANDS FOR EDUCATIONAL-VOCATIONAL COUNSELING

Thomas J. Grites and David H. Mills

Educational-vocational counseling has been criticized from many perspectives, yet in the past it has demanded a significant portion of effort in college and university Counseling Centers. Barry and Wolf (1962) suggest that there is no justification for a separate practice of vocational counseling because "no individual makes any decision from a framework other than his total personality." Therefore, a total view of human personality, stressing the dynamic aspects, should pervade all counseling. Other studies indicate that there may be a trend toward the fusion of the traditional educational-vocational and personal-social-emotional categories of counseling clients. Osipow and Gold (1968) found that the career development pattern of maladjusted students is not as smooth as that of well-adjusted students, suggesting a possible interaction between the traditional categories. Frankel and Perlman (1969) reported that the student body at one university (including ex-educational-vocational clients) perceived the function of individual counseling primarily as serving the needs of those with personal problems.

Data accumulated at the University of Maryland College Park Counseling Center in recent years has suggested an increase in the percentage of clients presenting personal-social-emotional problems, with a corresponding decrease in the educational-vocational category. Besides the fusion of categories suggested above, many alternative reasons for this trend were hypothesized: there is less pressure to secure a job upon graduation; there are fewer job opportunities available; there is more emphasis on interdisciplinary training and graduate study; increased drug usage has increased the concern for personal-social-emotional counseling; there are simply more personal-social-emotional problems with students; people are now more willing to discuss personal concerns than they were before; there is more concern with intrinsic learning; or, as Kauffman (1967) puts it, "many of them highly prize, as a major life goal, the development of an integrated and satisfying concept of themselves as worthwhile individuals. There is a deep desire to integrate job, family life, civic role, and leisure rather than to fragment a life into general contradictory pieces. Self-examination is more common, including a concern for motives, honesty, values, and an appropriate way of life."

During the Summer Session of 1972 it was decided to conduct a survey in order to determine whether or not this institutional trend was part of a broader one that might be occurring throughout the country.



## Sample and Procedures

Questionnaires were mailed to the 275 Counseling Center directors who participate in the National Counseling Center Data Bank (including several Canadian institutions). The questionnaire, of which the significant questions are shown below, was brief enough to be distributed on a stamped self-addressed postal card. One month was allowed for the return.

What percentage of your undergraduate clients requested educational-vocational counseling for the academic years

1969-70 \_\_\_\_\_ 1971-72 \_\_\_\_\_

Do you feel that the demand for educ/voc counseling is

greatly decreasing	somewhat decreasing	remaining the same	somewhat increasing	greatly increasing

## Results

One hundred and ninety-three responses (70%), some with additional letters and information, were returned. Not all responses were usable, however. In tabulating the 140 usable responses to the first question several guidelines were used:

1. Usable responses were defined as those which reported figures for both years.
2. Percentages were used whether the respondents gave an actual or an estimated figure.
3. Mid-point percentages were used when the figure was given as a range.
4. The change in percentage per each institution was examined in order to obtain another response to the basic question.
5. Median percentages were reported for both years and for the change. These results are shown in Table 1.

Several respondents included anecdotal remarks, some of which are as follows:

"Part of the increase could be attributable to the new Director's concern with focusing on this area."

"Our goal and first priority are to improve and increase career counseling."



TABLE 1

Median Percentages of Educational-Vocational Counseling

	N	Md
1969-70	144	44.0%
1971-72	144	45.0%
Change	144	+2.0%

There were 189 usable responses to the second question which related to estimates as to whether the demand for educational-vocational counseling was increasing or not. The responses to this question are summarized in Table 2 and clearly reflect that over half of the respondents (55%) see the demand for such counseling on the increase.

TABLE 2

Estimate of Demand for Educational-Vocational Counseling

	N	%
Greatly decreasing	7	3.70
Somewhat decreasing	28	14.81
Remaining the same	50	26.46
Somewhat increasing	83	43.92
Greatly increasing	21	11.11
Total	189	100.00

Several respondents included anecdotal remarks, some of which are as follows:

"Part of the increase could be attributable to the new Director's concern with focusing on this area."

"Our goal and first priority are to improve and increase career counseling."



"It is personal adjustment counseling requests which are increasing. Vocational-educational has lower percentage but maybe the demand is still great as ever."

"Percent is going down but N remains the same."

"Fewer students come in asking specifically for vocational/educational counseling, but more students seem to be seeking personal counseling regarding general or crisis concerns."

"Percent increase due mainly to expanded use of our minority counseling unit."

"A new Office of Career Development opened last fall and took care of part of the educational-vocational counseling load. We would really like to get rid of all of it."

Demand is somewhat increasing "but demand for other things increasing more."

"The form of request is different: less faith in tests and counseling, more interest in alternative vocations and how one translates life-style and values into career. I think concern about educational/vocational decisions is as great or greater than earlier; our students look to new sources of help."

Somewhat decreasing "for conventional careers;" somewhat increasing "for alternate life-style counterculture type careers."

### Conclusions and Discussion

The results of the survey tend to reject the hypothesis. The data gathered from the first question, including the change in percentage as shown in Table 1, indicate that the percentage of educational-vocational counseling is remaining about the same as it has been in the past. The responses to the second question would indicate somewhat of an increase in the demand, as illustrated in Table 2. The anecdotal remarks seem to lend support in both directions. An overall general impression gained from this survey is that educational-vocational counseling is definitely not decreasing and probably not increasing significantly; it is probably increasing slightly or remaining about the same.

It is interesting that the Frankel and Perlman study (1969) is somewhat contradicted by 1970-71 figures reported by James W. Creaser (1972) at the same institution. His figures indicate that students estimate their problems to be more vocational and academic, whereas the counselors estimate the problems



to be more personal/social.<sup>1</sup> This suggests that results of similar studies may depend upon who is labeling the kind of counseling to be provided.

It is concluded that the hypothesis that stimulated this survey is not substantiated and the University of Maryland College Park Counseling Center is experiencing somewhat of a unique trend in its counseling clientele. It suggests that a similar study should be conducted in two or three years to observe whether there is a change in the general trend toward this form of counseling.

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<sup>1</sup>James Creaser, personal correspondence of July 25, 1972.



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